

PE06-002
HYUNDAI
4/30/2006
TAB 3 – 7
PART 2 OF 2

PE06-002
HYUNDAI
4/30/2006
TAB 3

I, Tom Ottoson, declare as follows:

1. I am the owner and president of Associated Professional Investigations, Inc., ("API") located in Cedar Glen, California. I have been a licensed investigator for over 25 years. I supervise and conduct investigations concerning motor vehicles throughout the United States.
2. Prior to becoming an investigator, I was a member of the U.S. Air Force and then for eight years I was an officer for the California Highway Patrol.
3. In late February of 2006, I was contacted to search for, inspect and photograph 1996-2002 Sportage fuel tanks at salvage yards throughout California. I was specifically told not to discriminate among the vehicles and tanks I inspected. Regardless of their condition, I was instructed to obtain the vehicle identification information and photograph the top of the fuel tank and the bottom of the tank after removing the fuel tank protective shield. I was further instructed to purchase any fuel tank that showed evidence of leaks to send to Kia Motors America, Inc., for further evaluation and inspection, and if none were found, to send exemplar tanks to Kia in any case.
4. I had another licensed investigator, Phil Allen, assist in photographing the located fuel tanks. I have worked with Phil for over 20 years. I also met with Tim McCurdy, a former Kia employee, to obtain vehicle technical information and to assist in getting to one of the salvage yards.
5. A total of 13 fuel tanks were located and photographed during the course of our investigation. These fuel tanks were located in various salvage yards throughout Southern California including: Hesperia (3); Lancaster (4); Huntington Beach (2); Montclair (2); and Coachella (2). I inspected and photographed 4 fuel tanks, Phil inspected and photographed 7 fuel tanks and Tim inspected and photographed 2 tanks. A CD containing these photographs has been provided.
6. We questioned all salvage yard owners/managers as to whether they were aware of any leak problems with Sportage fuel tanks. They were not. One yard operator, John Kearney, of Ajax located in Coachella, California, was particularly knowledgeable about and interested in Kia vehicles and he was emphatic in stating that he had never seen any disruptive fuel tank corrosion or leaks regarding Sportage fuel tanks.
7. I have reviewed all the photographs and discussed them with both Phil and Tim and have knowledge of the following:
 - a. The fuel tanks which were located were in good to excellent condition. None of the fuel tanks displayed penetrating rust. Three of the thirteen tanks had minor surface rust. The remaining tanks had no rust.

- b. One of the tanks obtained from a yard in Montclair was slightly bent in the middle which may have occurred due to an accident or during the removal process. The others showed no physical damage. All of the protective shields appeared to be unbent and had their original shape.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed this 27 day of April 2006, at CEONA GLEN, California.


Tom Otloson

PE06-002
HYUNDAI
4/30/2006
TAB 4

I, B. Gregory Foutty, declare as follows:

1. I am the owner and president of Foutty Investigation Agency, Inc. located in Charleston, West Virginia.
2. Prior to starting Foutty Investigation Agency, Inc., I was a police officer in West Virginia where I was involved in criminal and accident investigations and traffic enforcement. I have been a private investigator since 1983. My work primarily consists of vehicle and product investigations for insurance companies and automobile manufacturers.
3. In mid-March of 2006, I was hired to search for, inspect and photograph 1996-2002 Sportage fuel tanks at salvage yards in the following states: Connecticut, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont and West Virginia. I was instructed to obtain the vehicle identification information and to photograph the top of the fuel tank and the bottom of the tank after removing the fuel tank protective shield. I was instructed not to select vehicles and tanks based on their condition, but to simply locate such model year vehicles and then photograph them regardless of their condition. I was further instructed to purchase any fuel tank that showed evidence of leaks to send to Kia Motors America, Inc., for further evaluation and inspection.
4. In addition to myself, two of my employees, George Johnson and Andrew Foutty located and photographed Sportage fuel tanks in accordance with these instructions. George has worked for me as an investigator for over 10 years and Andrew has worked for me as an investigator for over two years.
5. A total of 26 fuel tanks were located and photographed during the course of our investigation. These fuel tanks were located in various salvage yards in the following states: Massachusetts (2); Ohio (7); Michigan (2); New Jersey (3); New York (9); West Virginia (1) and Kentucky (2). I photographed one fuel tank, while George and Andrew photographed the other 25 tanks. A CD containing these photographs has been supplied.
6. I have reviewed all photographs and discussed them with both George and Andrew and have knowledge of the following:
 - a. The located fuel tanks were in good condition. None of the fuel tanks displayed penetrating rust.
 - b. In conversation with salvage yard owners/managers or employees, none were aware of any Sportage fuel tank leakage issues. However, the primary comment made by the salvage yard owners or managers with respect to the fuel tanks was that the screws holding the fuel sending unit

B. G. Foutty

in place would break off when attempting to remove the fuel sending unit to discard the fuel.

- c. Most of the fuel tanks that had an insulation pad attached to the fuel tank and shield protector for the fuel tank, showed evidence of surface rust where the attachment clips were located. The shield cover of a Sportage fuel tank located in New York was completely rusted through, but the fuel tank itself showed no evidence of corrosion. The fuel tank however did have rust stains transfer from pad clip corrosion.

I declare under penalty of perjury under the laws of the United States that the foregoing is true and correct. Executed this 20th day of April 2006, at Charleston, West Virginia.


B. Gregory Fealty

PE06-002
HYUNDAI
4/30/2006
TAB 5

Prior model) Sportage fuel tank field rust analysis
(Warranty returned parts A)

2006. 04. 04

Material Development Lab Metallic Material Research Team

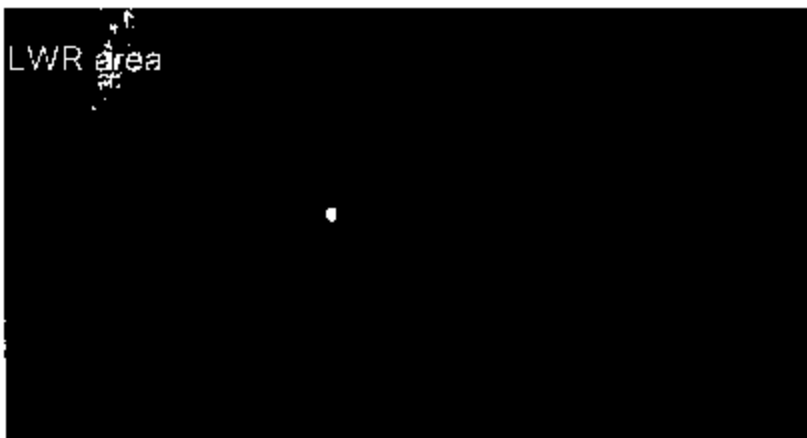
Analysis Sample

Warranty returned part A (KNDJA7239X5 [REDACTED])

UPR area

A dark, mostly black rectangular area with a few small white specks. The text "UPR area" is in the top left corner.

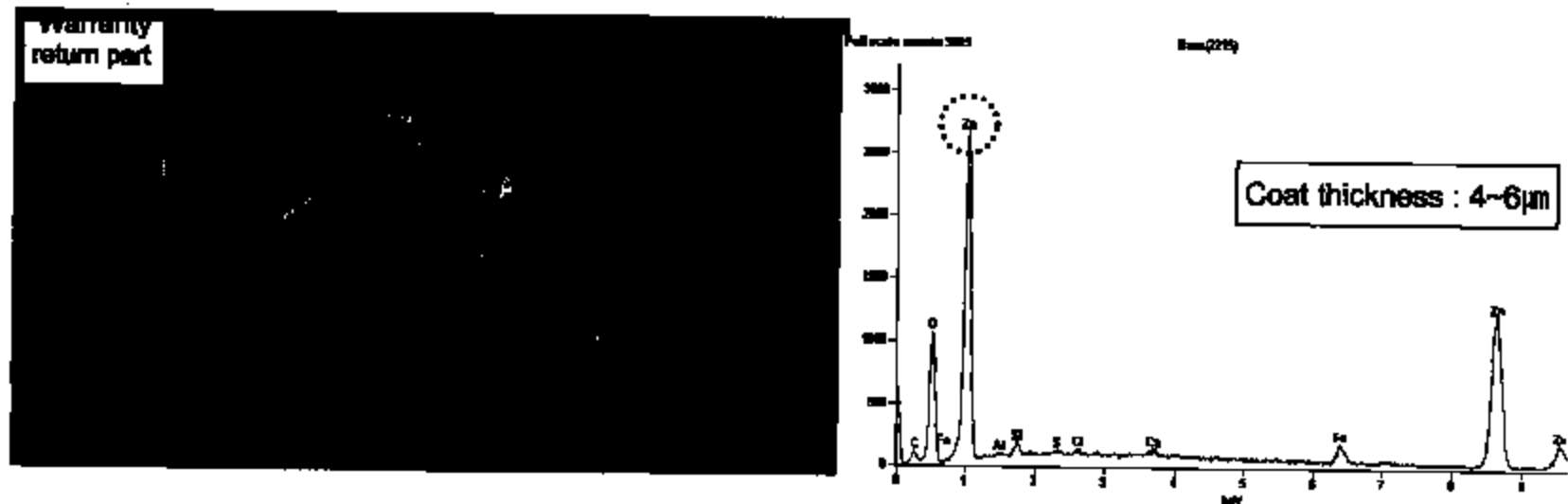
LWR area

A dark, mostly black rectangular area with a few small white specks. The text "LWR area" is in the top left corner.

Production date	'98.7/21
Mileage	44,000(mile)
Region	United States

Steel sheet surface treatment analysis result

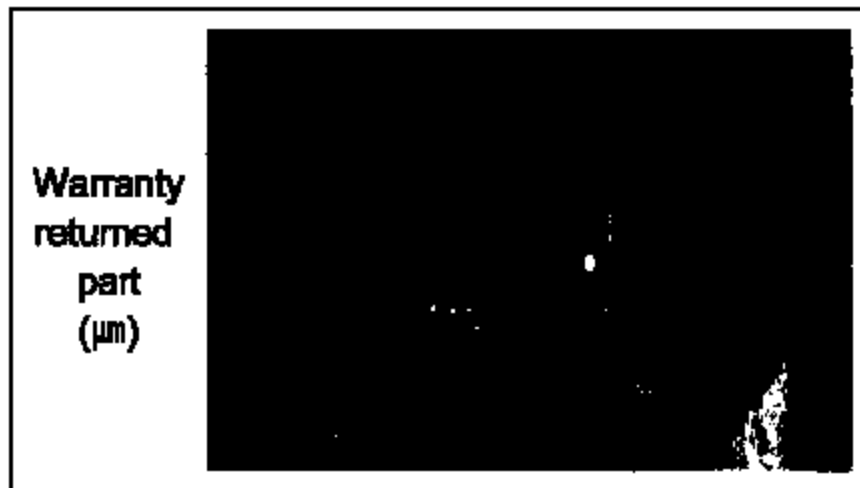
※ Design specification : SECEN-S 40/40 (Special Chromate-processed zinc galvanizing steel sheet)



▶ Inspection of 3 separate areas on side of tank (less corroded area) to measure coating thickness, including coating layer surface SEM element analysis

※ Warranty returned part's chromate layer low thickness(100~200mg/m²) & surface rust verification not possible
Zinc galvanized layer verified as normal, steel sheet material determined as okay
(RSVR CUP outer tank interior fine)

Deadener thickness measurement result (lower end part)



Area	Microscopic photo (50times)	Measurement result
①		330~430μm
②		330~360μm
③		270~440μm

※ PVC coating thickness of fuel tank's lower panel was not according to SPEC (500μm)

Rust depth (phenomenon) verification result

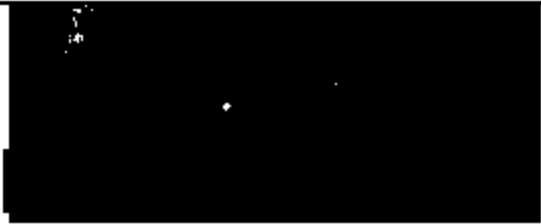
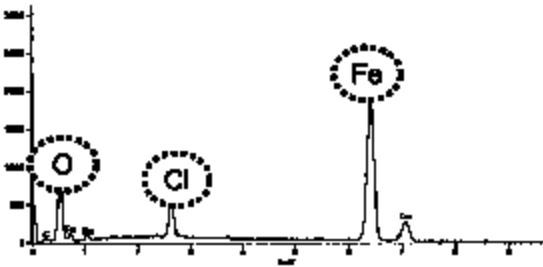
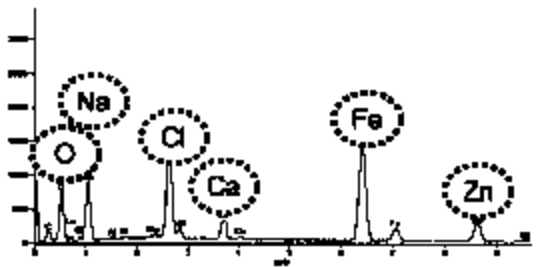


<p>① Area</p>	<p>Partial rust</p> <p>8 Areas Partial Rust Occurrence</p>
<p>② Area</p>	<p>Maximum 0.32mm (40%) Pit progress</p>

<p>③ Area</p>	<p>Maximum 0.3mm (38%) Pit progress</p>
<p>④ Area</p>	<p>Maximum 0.19mm (24%) Pit progress</p>

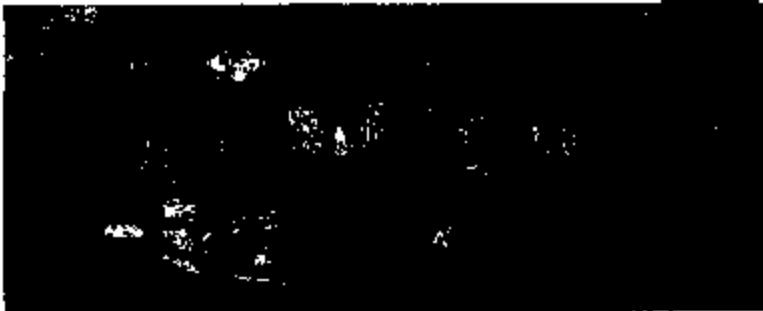
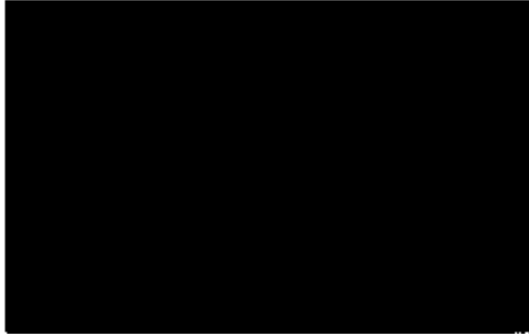

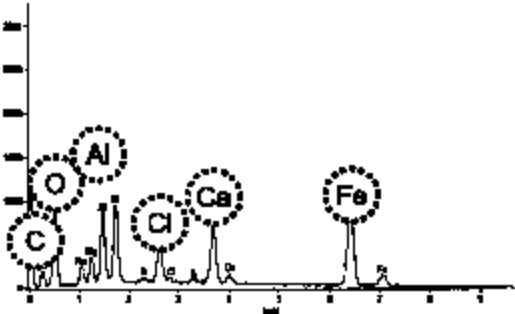
※ Rust progressed from outside towards inside of the tank (no evidence of rust inside).
 After chemical stripping of tank, partial rust found.

Rust formation analysis result - LWR PNL and DEADENER

Classification		Warranty Returned Part A	
LWR PNL surface (rust area)			
		PNL part	DEADENER part
Surface Element Analysis	PNL part Analysis		C : 8.59 O : 31.69 Na : 1.24 Cl: 4.2 Fe: 54.28wt%
	Deadener part analysis		C : 22.70 O : 24.71 Na: 10.37 Cl: 7.58 Fe: 22.26 Zn: 9.71wt%

※ Chemical elements Cl, CA & NA were detected. Conclusion was reached that salt (NaCl, CaCl₂) caused rust acceleration.

Insulator rust contaminant analysis result

Classification	A TANK	
Insulator exterior (Tank contact side)		
Rust surface (SEM photo)		
 Surface Element Analysis		C : 25.65 O : 38.95 Al : 3.70 Si : 3.95 Cl : 2.61 Ca : 4.78 Fe : 15.61wt%

※ Chemical elements Cl, Na & Ca (salt-NaCl, CaCl₂) were detected on the insulation pad. Some rust contamination found where insulation pad contacted fuel tank.

Rust occurrence analysis result

▣ Comprehensive Analysis Result

1. Fuel tank rust progressed from PNL lower end part outside to inside
 - Aging of insulation pad caused adhesion to the tank panel.
 - Moisture intrusion accelerated rusting due to salt damage to the Deadner coating layer on the lower side of the fuel tank.
2. Steel sheet material assumed to satisfy SPEC
3. Some parts of PVC coating (Deadener) thickness were not according to SPEC which resulted in the acceleration of rust in those areas.

PE06-002
HYUNDAI
4/30/2006
TAB 6

Prior model) Sportage fuel tank field rust analysis
(Warranty returned part B)

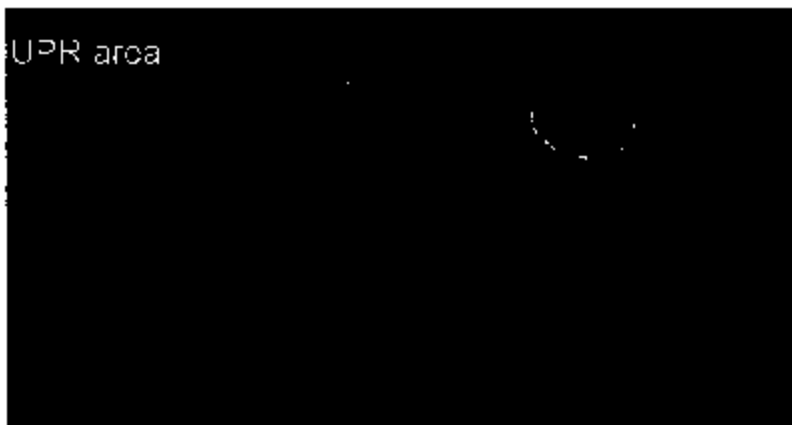
2006. 04. 04

Material Development Lab Metallic Material Research Team

Analysis Sample

Warranty returned part B (KNDJA7235W [REDACTED])

UPR area

A dark, mostly black image with some faint, illegible white markings.

LWR area

A dark, mostly black image with some faint, illegible white markings.

Production date

'98.2/11

Mileage

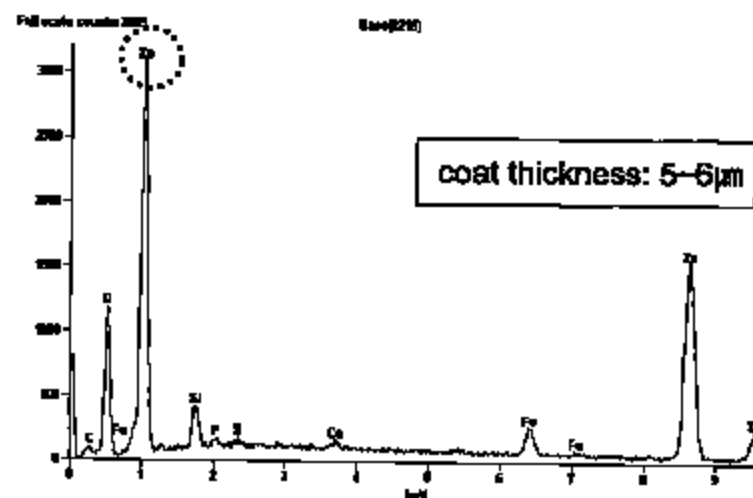
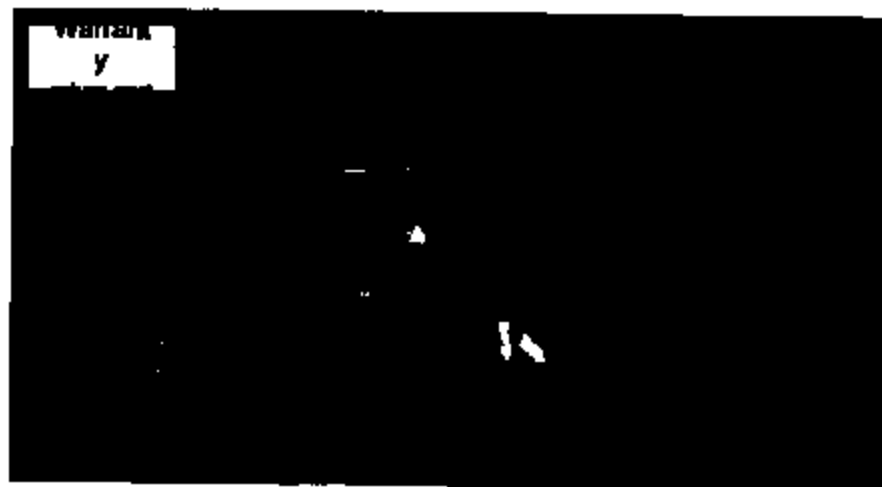
85,191(mile)

Region

United States

Steel sheet surface treatment analysis result

※ Design SPEC : SECEN-S 40/40 (Special Chromate-processed zinc galvanized steel sheet)



▶ Inspection of 3 separate areas on side of tank (less corroded area) to measure coating thickness, including coating layer surface SEM element analysis

※ Warranty returned part's chromate layer low thickness(100~200mg/m²) & surface rust verification not possible
Zinc galvanized layer verified as normal, steel sheet material determined as okay
(RSVR CUP outer tank interior fine)

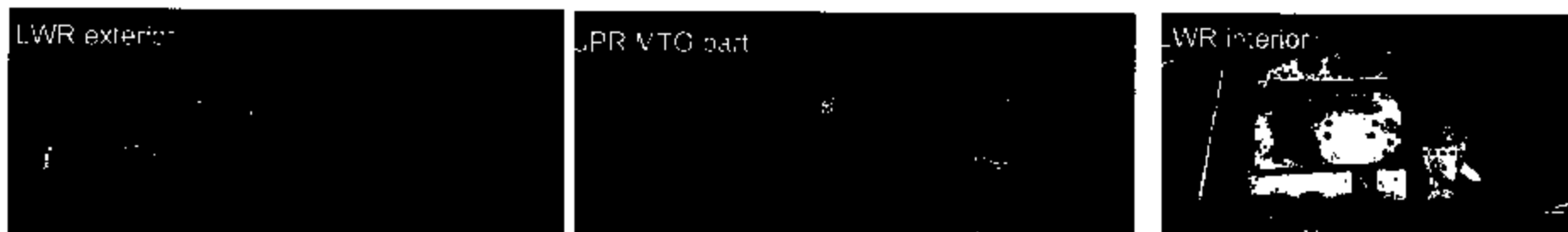
Deadener thickness measurement result (lower end part)



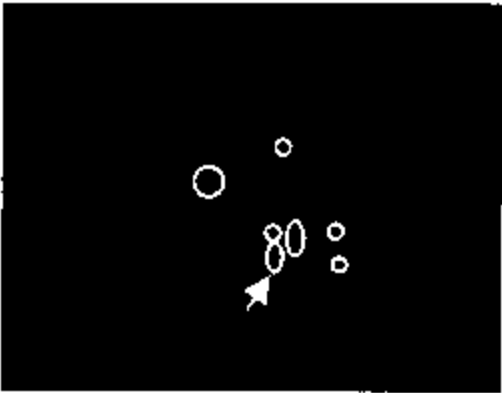



Area	Microscopic photo (50times)	Measurement result
④		430~490 μm
⑤		460~550 μm
⑥		430~480 μm

※ PVC coating thickness of fuel tank's lower panel was not according to SPEC (500 μm)


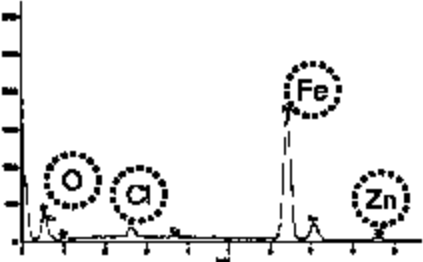
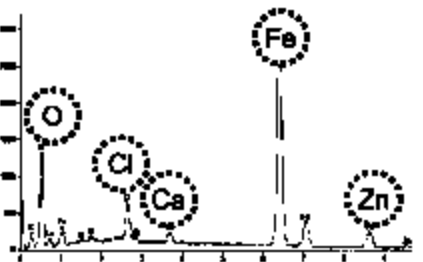
Rust depth (phenomenon) verification result



<p>① Area</p>	 <p>In rust active condition, some inner steel rusting verified</p>	<p>③ Area</p>	 <p>F/PUMP MTG area partial occurrence of rust Pit - Max 0.2mm Pit progress</p>
<p>② Area</p>	 <p>Before rust elimination</p> <p>7 areas' partial rust occurrence</p>	<p>④ Area</p>	 <p>Some interior area rust Pit occurred but minor</p>


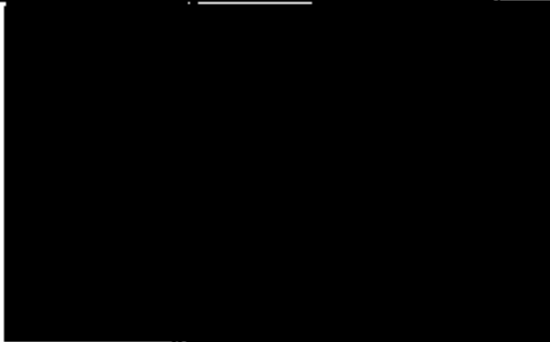

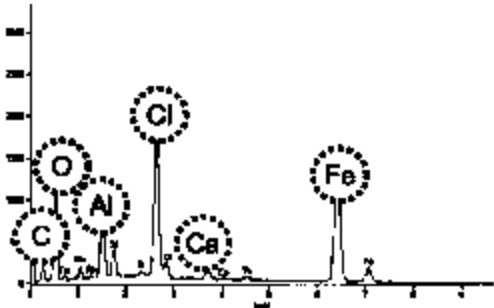
※ In area(①) partial rust is visible. In area(②) partial rust pit in progress
Some evidence of minor rust pits inside tank; determined to be of no issue

Rust formation analysis result - LWR PNL and DEADENER

Classification		Warranty returned part B	
LWR PNL surface (rust area)			
Surface Element Analysis	PNL part Analysis		O: 21.95 Cl: 2.53 Ca: 0.47 Fe: 70.54 Zn: 4.51wt%
	Deadener part analysis		C : 20.94 O : 29.37 Ca: 0.89 Cl: 2.34 Fe: 38.58 Zn: 7.54wt%

※ Chemical elements Cl, CA & NA were detected. Conclusion was reached that salt (NaCl, CaCl₂) caused rust acceleration.

Insulator rust contaminant analysis result

Classification	B TANK	
Insulator exterior (Tank contact side)		
Rust surface (SEM photo)		
 Surface Element Analysis		C : 30.62 O : 34.82 Al : 2.86 Si: 1.21 Cl: 8.89 Na: 1.12 Fe: 18.89wt%

※ Chemical elements Cl, Na & Ca (salt-NaCl, CaCl₂) were detected on the Insulation pad. Some rust contamination found where insulation pad contacted fuel tank.

Rust occurrence analysis result

▣ Comprehensive Analysis Result

1. Fuel tank rust progressed from PNL lower end part outside to inside
 - Aging of insulation pad caused adhesion to the tank panel.
 - Moisture intrusion accelerated rusting due to salt damage to the Deadner coating layer on the lower side of the fuel tank.
2. Steel sheet material assumed to satisfy SPEC
3. Some parts of PVC coating (Deadener) thickness were not according to SPEC which resulted in the acceleration of rust in those areas.

PE06-002
HYUNDAI
4/30/2006
TAB 7

Large fuel tank warranty certificate

2006. 04. 06

Donghee Precision Co., (Ltd)
Whasung Plant

1. Purpose

- N. America-bound fuel tank lower plate rust warranty—returned part (KMA) recovery leakage Y/N
 verification : LEAK TEST execution (AIR pressure 0.3Kg/Cm² * 1min)

2. Result

NO	VIN NO.	Visual verification	Result
#1	KNDJA 7235W (1 st recall)	F/TANK LWR PNL rust & visual verified partial rust	▶ No leakage in rust occurrence part ▶ Leaks only in visual ID partial rust
#2	KNDJA 7239X (1 st recall)	F/TANK LWR PNL rust	▶ No leakage in rust occurrence part
#3	KNDJA 7231W (2 nd recall)	F/TANK LWR PNL rust	▶ No leakage in rust occurrence part
#4	KNDJA 7236Y (2 nd recall)	F/TANK UPR, LWR PNL rust	▶ No leakage in rust occurrence part
#5	KNDJA 723XX (2 nd recall)	F/TANK LWR PNL rust & visual verified partial rust	▶ No leakage in rust occurrence part ▶ Leaks only in visual ID partial rust
#6	KNDJA 7355X (3 rd recall)	F/TANK LWR PNL rust & visual verified partial rust	▶ No leakage in rust occurrence part ▶ Leaks only in visual ID partial rust

3. Conclusion

- Leaks only in visual ID partial rust, no leakage in other rust occurrence part

#1 VIN NO. (KNDJA 7235W [REDACTED]) 1st recall

Result	Leakage occurs only in visual identifiable partial rust		
Photo			
LEAK TEST			

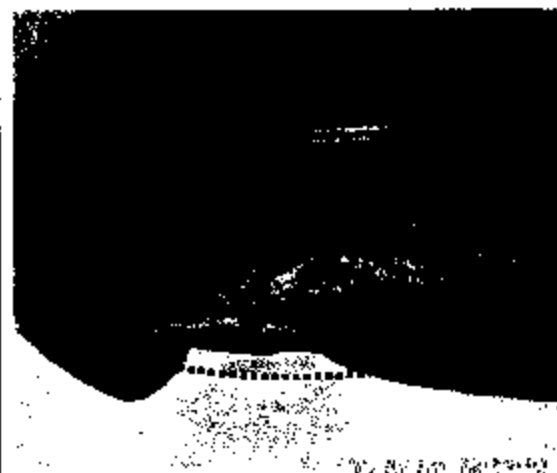
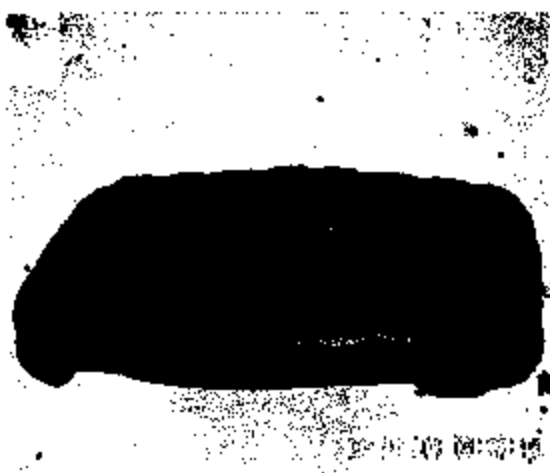
#2

VIN NO. (KNDJA 7239X [REDACTED] 1st recall

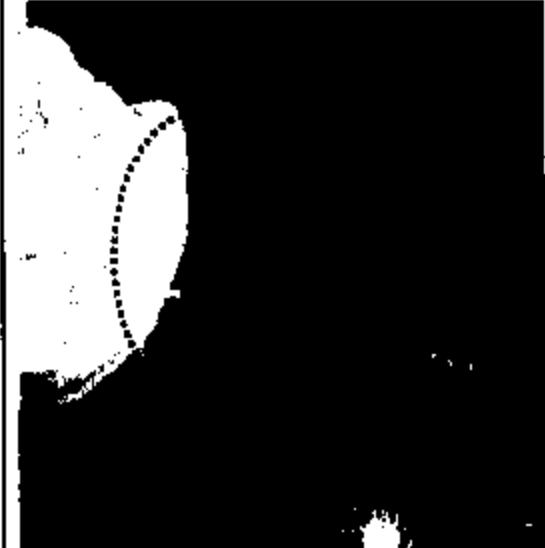
Result

No leakage occurrence




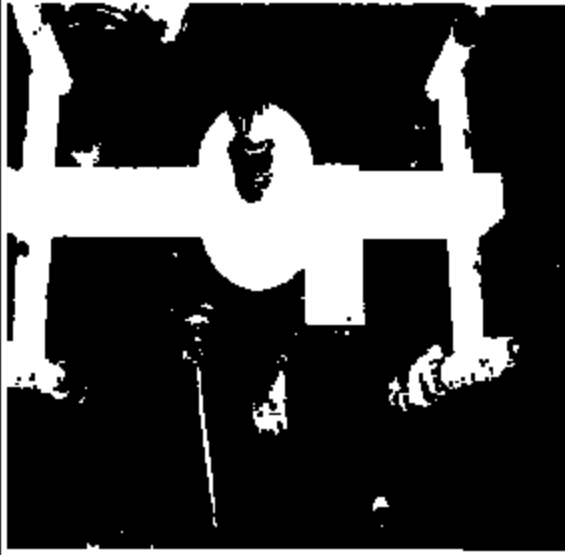

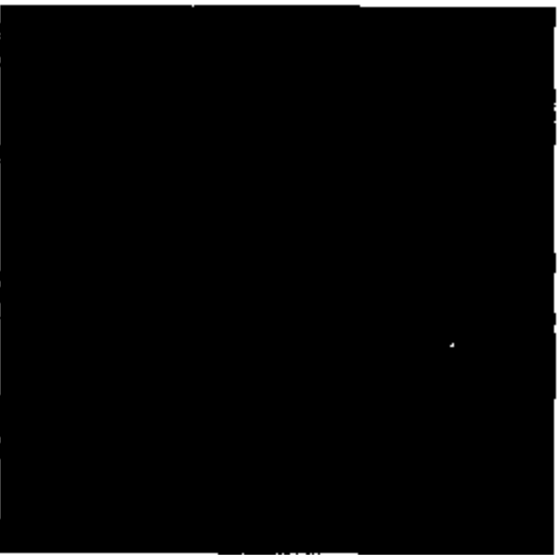
Photo



LEAK TEST



#3 VIN NO. (KNDJA 7231W [REDACTED] 2nd recall

Result	No leakage occurrence		
Photo			
LEAK TEST			

#4

VIN NO. (KNDJA 7236Y [REDACTED] 2nd recovery

Result

No leakage occurrence

Photo



LEAK TEST



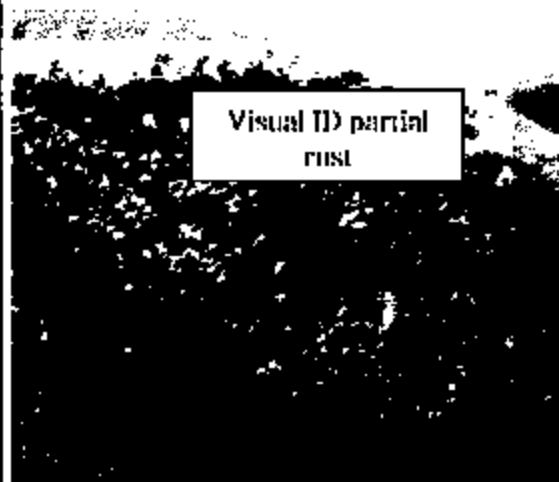
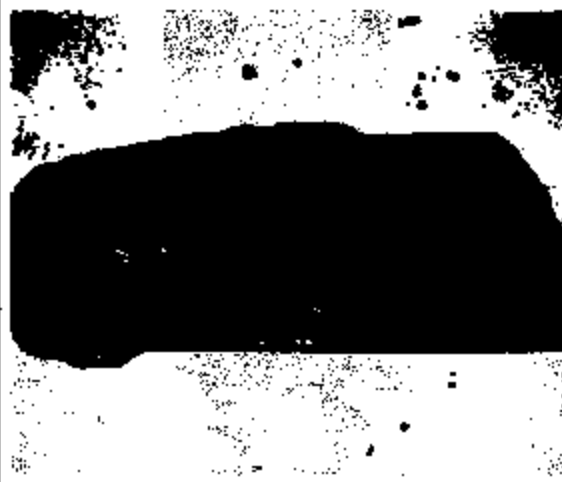
#5

VIN NO. (KNDJA 723XX [REDACTED] 2nd recall

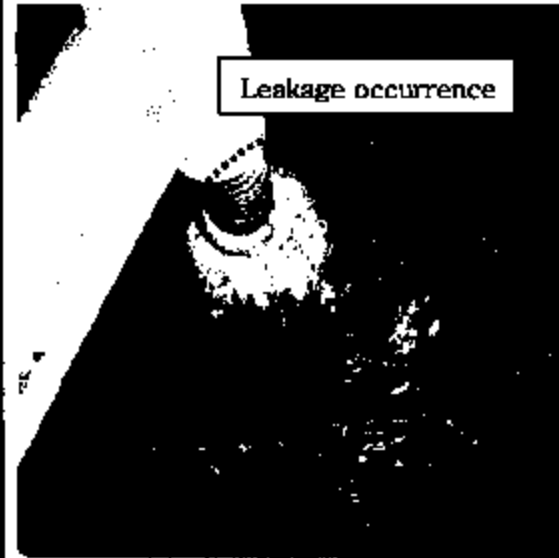
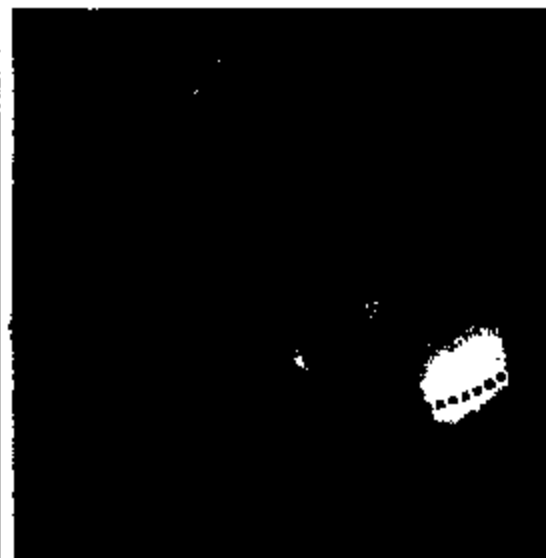
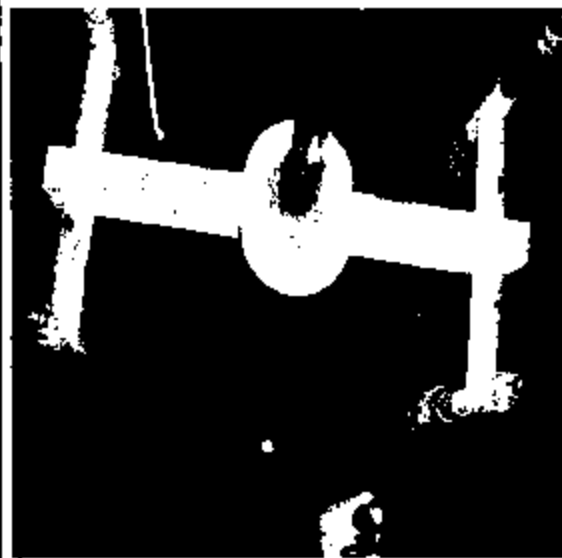
Result

Leakage occurs only in visual identifiable partial rust

Photo



LEAK TEST



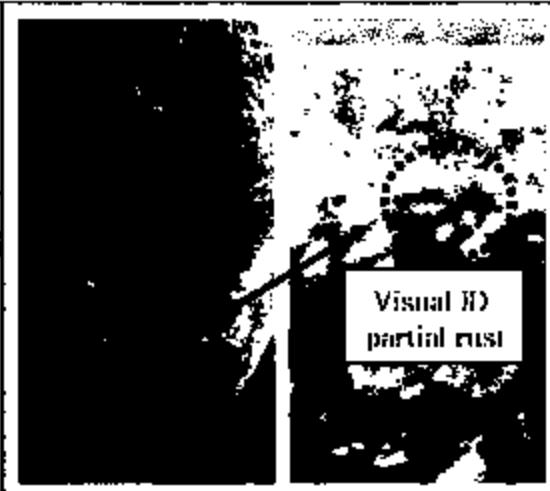
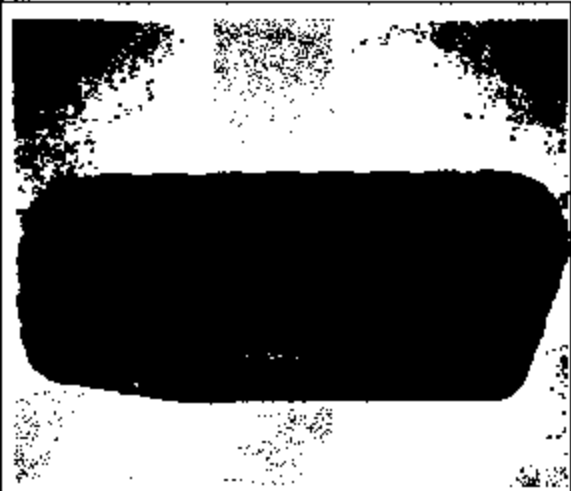
#6

VIN NO. (KNDJA 7239X [REDACTED]

3rd recall

Result Leakage occurs only in visual identifiable partial rust

Photo



LEAK TEST

